

UNITED STATES PATENT AND TRADEMARK OFFICE  
(Attorney Docket No. 11727US03)

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*B. DAVENPORT*  
*6-4-0*  
Jc903 U.S. PRO  
09/710827  
11/13/00

In the Application of:

**Ravi Chandran**  
**Daniel J. Marchok**  
**Bruce E. Dunne**

Serial No.

Filed: November 13, 2000

For: **METHOD AND APPARATUS  
FOR ADAPTIVELY  
SUPPRESSING NOISE**

Examiner:

Group Art Unit:

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as express mail in an envelope addressed to: Asst. Commissioner for Patents, United States Patent and Trademark Office, BOX PATENT APPLICATION, Washington, D.C. 20231 on this 13th day of November, 2000 as No. EL541887527US.

By:

*Ronald E. Larson*  
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Reg. No. 24,478

**INFORMATION DISCLOSURE STATEMENT**

Assistant Commissioner for Patents  
BOX PATENT APPLICATION  
Washington, D.C. 20231

Dear Sirs:

Pursuant to 37 C.F.R. §§ 1.97-1.98 and in compliance with the duty of disclosure set forth in 37 C.F.R. § 1.56, it is respectfully requested that the following references be considered in the examination of the above-identified patent application:

<u>U.S. Patent No.</u>	<u>Date</u>	<u>Name</u>
4,351,983	09/28/92	Crouse, et al.
4,423,289	12/27/83	Swinbanks
4,454,609	06/12/84	Kates
4,628,529	12/09/86	Borth, et al.
4,630,304	12/16/86	Borth, et al.
4,630,305	12/16/86	Borth, et al.
4,769,847	09/06/88	Taguchi

5,012,519	04/30/91	Adlersberg, et al.
5,285,165	02/08/94	Renfors, et al.
5,400,409	03/21/95	Linhard
5,425,105	06/13/95	Lo, et al.
5,432,859	07/11/95	Yang, et al.
5,485,524	01/16/96	Kuusama, et al.
5,610,991	03/11/97	Janse
5,748,725	05/05/98	Kubo

McAulay and Malpass, "Speech Enhancement Using a Soft-Decision Noise Suppression Filter", "IEEE Transactions on Acoustics, Speech and Signal Processing, vol. 28, No. 2, pp. 137-145 (April 1980)

Berouti, Schwartz and Makhoul, "Enhancement of Speech Corrupted by Acoustic Noise", IEEE Conference on Acoustics, Speech and Signal Processing, pp. 208-211 (April, 1979)

Vaseghi, "Advanced Signal Processing and Digital Noise Reduction", Chapter 9, ISBN Wiley 0471958751), pp. 242-260 (1996)

Lim and Oppenheim, "Enhancement and Bandwidth Compression of Noisy Speech", Proceedings of the IEEE, Vol. 67, No. 12, pp. 1586-1604 (December 1979)

Kuc, "Introduction to Digital Signal Processing", Chapter 9.5, (ISBN 0070355703), pp. 361-379 (1988)

"DTMF Tone Generation and Detection: An Implementation Using the TMS320C54x", Texas Instruments Application Report, pp. 5-12, 20, A-1, A-2, B-1, and B-2 (1997)

Deller, Proakis and Hansen, "Discrete-Time Processing of Speech Signals", Chapter 8.5

"Digital Cellular Telecommunications System (Phase 2) Full Rate Speech; Part 6: Voice Activity Detection (VAD) for Full Rate Speech Traffic Channels", Draft ETS 300 580-6, Special Mobile Group Technical Committee of ETSI (November 1997)

The above-identified reference(s) are listed on the attached PTO Form 1449 and copies are also enclosed herewith. This submission is in no way intended as an admission that the above-cited references constitute prior art. Applicant expressly retains the right to take any actions necessary to remove the above-cited references from the available prior art. Consideration of the above-identified references in the examination of the present patent application is respectfully requested.

The Commissioner is hereby authorized to charge any additional fees which may be required or credit any overpayment to Account No. 13-0017.

Respectfully submitted,



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November 13, 2000  
Date

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